

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned patent application:

Listing of Claims:

1. (Currently Amended) A method of forming an optical fiber from a preform having a glass core surrounded by an outer glass cladding with a coating of material between the core and cladding which strongly interacts with the light in the core to affect ~~either high dispersion, absorption saturation, amplification, Faraday rotation or other similar effects of the said light,~~ said method comprising:
 - (a) providing a preform having a glass core, a substantially homogeneous coating of a light interactive material over said glass core and a glass cladding over said coating of said light interactive material, with said glasses having an overlapping flow range and said coating material having a flow point which lies below the flow range of said glasses with said flow range being in the range of about 600 - 1500°C; and
 - (b) heating said preform to an elevated temperature and drawing a fiber from said preform at the flow temperature of said glasses, whereby a fiber is formed having a substantially continuous film of light interactive material formed between said core and cladding throughout the entire length of the fiber.
2. (Original) The method of claim 1 in which the light interactive coating comprises an inorganic material.
3. (Original) The method of claim 1 is in which the light interactive material is an inorganic material selected from the group consisting of a metal, metal alloy, ceramic, ferrite, magnetic material and a semiconductor.
4. (Original) The method of claim 1 in which the light interactive material comprises a metal or a metal alloy.

5. (Original) The method of claim 1 in which the light interactive material comprises an AlCu alloy.

6. (Currently Amended) A method of forming an optical fiber from a preform having a glass core surrounded by an outer glass cladding with a coating of semiconductor material between the core and cladding which strongly interacts with the light in the core to affect ~~either high dispersion, absorption saturation, amplification, Faraday rotation or other similar effects of the said light~~, said method comprising:

(a) providing a preform having a glass core, a substantially homogeneous coating of a light interactive semiconductor material over said glass core and a glass cladding over said coating of said light interactive semiconductor material, with said glasses having an overlapping flow range and said coating material having a flow point which lies below the flow range of said glasses with said flow range being in the range of about 600 - 1500°C; and

(b) heating said preform to an elevated temperature and drawing a fiber from said preform at the flow temperature of said glasses, whereby a fiber is formed having a substantially continuous film of light interactive semiconductor material formed between said core and cladding throughout the entire length of the fiber.